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TITLE: MANUFACTURE OF BIOLOGICAL SAMPLE FOR SCANNING

ELECTRON

MICROSCOPE, DEVICE THEREFOR AND BIOLOGICAL

SAMPLE

OBSERVING METHOD

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ABSTRACT:

PURPOSE: To provide a manufacturing method of a biological sample for a

scanning electron microscope without the deformation of the sample, a device

therefor, and a biological sample observaing method.

CONSTITUTION: A control device 14 sends a cooling signal to a power supply

16. As a result, a sample holder 11 positioned on a thermo-module is cooled,

and a sample 12 is also cooled. The control of the control device 14 stopping

the supply of the cooling signal at the time of $-45\&\deg$; C is based on the data

stored in a memory 15. The control device 14 sets the vacuum degree

of a

sample chamber 2 to a low vacuum state between $0.01 \mathrm{Torr}$ and $2 \mathrm{Torr}$, and the

control device 14 sends a heating signal to the power supply 16. The heating

temperature of the sample 12 gradually rises and stops when the temperature of

the sample 12 reaches 15° C. Upon terminating such treatment of the sample

12, electron beams irradiate the sample 12 in the low vacuum state, and a

sample image is displayed on a display device on the basis of the reflected

electrons emitted from the sample 12.

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